



Chapter 4

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 You will find overshoes and overboots in  
Part 1, pages 44 – 46: Reusable  
Part 2, pages 30 – 31: Disposable







- 01** **Marking according to EN ISO 20347**  
Closed heel area + antistatic + energy absorption capacity in the heel area
- 02** **Marking according to EN ISO 20347**  
Like O1 + water passage and water absorption
- 03** **Marking according to EN ISO 20347**  
Like O2 + puncture resistance and profiled outsole
- A** **Antistatic shoes**
- E** **Energy absorption capacity in the heel area**
- FO** **Fuel resistance**
- OB** **Basic requirement occupational footwear according to EN ISO 20347**  
Slip resistance (SRA, SRB or SRC)
- S1** **Marking according to EN ISO 20345**  
Closed heel area + antistatic + energy absorption capacity in the heel area
- S1P** **Puncture resistant midsole**
- S2** **Marking according to EN ISO 20345**  
Like S1 + water passage and water absorption
- S3** **Marking according to EN ISO 20345**  
Like S2 + penetration resistance and profiled outsole
- SB** **Basic requirement safety shoes according to EN ISO 20345**  
Slip resistance (SRA, SRB or SRC) + energy absorption of the toe cap (200 joules)
- SRA** **Anti-slip on floors with ceramic tiles with sodium lauryl sulphate solution (SLS)**
- SRB** **Anti-slip on steel floor with glycerol**
- SRC** **SRA + SRB**
- HACCP** **HACCP compliant**
- ALU** **Aluminium toe cap**
- STEEL** **Steel toe cap**
- COMP** **Composite toe cap**
- HEEL** **Adjustable, movable heel strap**
- INSOLE** **Removable insole**
- BREATHABLE** **Breathable textile**
- RESISTANCE** **Resistance to penetration**
- ELEVATION** **Sole elevation**
- CUSHIONING** **Multiple cushioning**
- METAL** **Metal-free**
- KITCHEN** **Suitable for kitchen use**
- ESD** **Electrostatic discharge**  
Protection against sparkover voltage
- 121°** **Autoclavable at 121 °C**
- 85°** **Washable**  
Degree as shown in each case
- 85°** **Suitable for dryers**  
Degree as shown in each case
- DGUV 112-191** **PPE foot protection according to DGUV regulation**
- NO NANO** **Does not contain a nanomaterial as defined in Recommendation 2011/696/EU**  
Nanomaterial: a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50% or more of the particles in the number size distribution, one or more external dimensions is in the size range 1 nm – 100 nm.

## Standard / ESD / antistatic version



Clogs / Occupational shoes		Size	Colour	Upper material	Art. No.
	<b>ACTIVE</b> OB SRC FO	35-48	● ●	smooth leather, not perforated	32010-8
				smooth leather, perforated	32030-8
	<b>ACTIVE</b> OB SRC FO A	35-48	●	smooth leather, not perforated	32020-8
	<b>ACTIVE</b> OB SRC FO E	35-47	● ●	microfibre, not perforated	327785-8
				microfibre, perforated	327786-8
	<b>THE ORIGINAL PLUS</b> OB SRC FO A E	36-42	●	microfibre, not perforated	327781
				microfibre, perforated	327782
	<b>RUBBER</b> OB SRC FO A	36-47	● ●	smooth leather, not perforated	32110
				smooth leather, perforated	32100
	<b>EASY</b> OB SRC FO A E	35-48	●	smooth leather, not perforated	327787
	<b>DYNAMIC (with ABEBA print)</b> OB SRC FO A E	35-48	● ●	smooth leather, not perforated	32121
	<b>ARROW</b> OB SRA FO A	36-47	●	microfibre, perforated	327784

○ white ● black ● navy blue ● white/light blue ● white/blue ● white/red ● black/brown






### Necessary basic requirements for cleanroom compatible occupational shoes, depending on the respective application:

- ▶ abrasion-resistant upper materials
- ▶ abrasion-resistant and closed outsole materials
- ▶ anti-slip soles
- ▶ antistatic or ESD-compliant, if required
- ▶ washability (applies only to microfibre)
- ▶ disinfectability, especially for the use in microbiological controlled areas

**!** Possible on request: Special models up to size 50 as well as orthopaedic shoes!


The following norms, among others, are relevant: CE, EN ISO 20347, ESD according to EN 61340 etc.



Slippers / Occupational shoes	Size	Colour	Upper material	Art. No.
 <b>AIR CUSHION</b> , breathable, moisture absorbing lining 01 SRC A	35-47	● ●	smooth leather, perforated	32420
 <b>X-LIGHT</b> , elastic instep area* 02 SRC FO A	35-48	● ●	smooth leather, not perforated	32470
 <b>UNI6</b> , elastic instep area, foamed PU midsole 02 SRC FO A	35-48	● ●	microfibre, perforated	32479
 <b>AIR CUSHION</b> , elastic instep area, integrated footbed 01 SRC A	35-47	●	microfibre, laterally perforated	32310
 <b>ZWIESEL</b> , elastic instep area, DRYtech textile, antibacterial 02 SRC A	36-47	●	microfibre, not perforated	31262

○ white ● black






\* also available with zip (plastic) for textile shaft to improve air impermeability between shoe and trouser leg, Art. No. 32470T1RV1 (see part 1, page 46)



Sandals / Occupational shoes	Size	Colour	Upper material	Art. No.
 <b>UNI6</b> , with adjustable instep area, velcro fastening 01 SRC A	35-48	● ●	microfibre, perforated	32481



### Necessary basic requirements for cleanroom compatible occupational shoes, depending on the respective application:

- ▶ abrasion-resistant upper materials
- ▶ abrasion-resistant and closed outsole materials
- ▶ anti-slip soles
- ▶ antistatic or ESD-compliant, if required
- ▶ washability (applies only to microfibre)
- ▶ disinfectability, especially for the use in microbiological controlled areas

The following norms, among others, are relevant:  
 CE, EN ISO 20347:2012, ESD according to EN 61340-4-3, -5-1 etc.

Slippers / Safety shoes	Size	Colour	Upper material	Art. No.
 <b>X-LIGHT</b> , elastic instep area, antistatic S2 SRC FO STEEL A	35-48	● ●	smooth leather, not perforated	32531
 <b>X-LIGHT</b> , elastic instep area S2 SRC FO STEEL A	35-48	● ●	smooth leather, not perforated	32530
 <b>STATIC CONTROL</b> , elastic instep area S2 SRC FO COMP A	36-47	●	microfibre, not perforated	32564
 <b>ANATOM</b> , velcro fastener, PU midsole, anti-kink protection, torsion joint S2 SRC FO STEEL A	36-52	● ●	microfibre, not perforated	32548
 <b>UNI6</b> , elastic instep area, Soft-PU midsole S2 SRC FO STEEL A	35-48	● ●	microfibre, not perforated	32246


Clogs / Safety shoes	Size	Colour	Upper material	Art. No.
 <b>X-LIGHT</b> , elastic instep area, adjustable heel strap by velcro fastening SB SRC STEEL A	35-48	● ●	smooth leather, not perforated	32515
 <b>ANATOM</b> , elastic instep area/adjustable heel strap with velcro fastener SB SRC FO STEEL A	36-52	● ●	microfibre, not perforated	32539

Sandals or Loafers / Safety shoes	Size	Colour	Upper material	Art. No.
 <b>X-LIGHT</b> , sandal with double velcro fastener, breathable mesh-inserts S1 SRC FO STEEL A	35-48	● ●	smooth leather, textile inserts	32542
 <b>UNI6</b> , sandal with velcro fastener, breathable, moisture absorbing lining S1 SRC FO STEEL A	35-48	●	microfibre, air inserts	32480

### Necessary basic requirements for cleanroom compatible safety shoes, depending on the respective application:

- ▶ abrasion-resistant upper materials
- ▶ abrasion-resistant and closed outsole materials
- ▶ anti-slip outsoles
- ▶ toe caps made of steel, aluminium or composite (plastic)
- ▶ antistatic or ESD-compliant, if required
- ▶ washability (applies only to microfibre)
- ▶ disinfectability, especially for the use in microbiological controlled areas

The following norms, among others, are relevant:  
 CE, EN ISO 20345, ESD according to EN 61340 etc.

 Possible on request:  
 Special models up to size 52  
 as well as orthopaedic shoes!



## Standard / antistatic version



Clogs / Occupational shoes	Size	Colour	Upper material	Art. No.
<b>Autoclavable Clog</b> , with foldable, adjustable heel strap OB SRC A E 60° 121°	double sizes* 35-46		special	32170
<b>CHIROCLOGS® CLASSIC</b> , surgical shoes, adjustable heel strap OB SRC A 70° 70°	36-46, 47/48		polyurethane	31160
<b>CHIROCLOGS® CLASSIC</b> , surgical shoes, ventilation holes OB SRC A 70° 70°	36-46, 47/48		polyurethane	31180
<b>CHIROCLOGS® SPECIAL</b> , surgical shoes, ventilation holes, anatomical footbed OB SRC A 85° 85°	35-46		polyurethane	31182

○ white ● blue ● green ● yellow ● orange ● red

\*double size: please always specify the straight size when ordering: 36, 38, 40, 42, 44, 46

### Necessary basic requirements for cleanroom compatible occupational shoes, depending on the respective application:

- ▶ abrasion-resistant upper materials
- ▶ abrasion-resistant and closed outsole materials
- ▶ anti-slip soles
- ▶ antistatic or ESD-compliant, if required
- ▶ washability
- ▶ disinfectability and sterilisability, especially for the use in microbiological controlled areas

The following norms, among others, are relevant: CE, EN ISO 20347, ESD according to EN 61340 etc.



Many models are also available with textile shafts!

## Active Comfort / Soft Comfort



Art. No. 32983 small

Art. No. 32981

Back of the sole Active Comfort x-light

Art. No. 32985-1

Art. No. 32983-2 wide

Exchangeable insoles for	Properties	Size	Colour	Version	Art. No.
<b>X-LIGHT</b> , occupational shoes with Active Comfort insole	OB A	35 - 48	●	open closed	32980 32980-1
<b>X-LIGHT</b> , safety shoes with Active Comfort insole	S2 A	35 - 48	●	closed	32981
<b>DYNAMIC</b> , occupational shoes with Active Comfort insole	OB A	35 - 48	●	open	32984
<b>EASY</b> , occupational shoes with Active Comfort insole	OB A	35 - 48	●	open	32987
<b>ANATOM</b> , safety shoes with Active Comfort insole	S2 A	36 - 52	●	open closed	32985-1 32985
<b>CRAWLER</b> , safety shoes with Active Comfort insole	S2 A	36 - 48	●	open closed	32986 32986-1
<b>UNI6</b> , safety shoes with Soft Comfort insole	S2 A	35 - 48	● ● ●	closed	S 32983 M 32983-1 W 32983-2
<b>UNI6</b> , safety shoes with Active Comfort insole	S2 A	35 - 48	●	closed	32983-4

Innovative antibacterial lining materials and exchangeable Active Comfort/Soft Comfort insoles ensure optimal temperature and moisture balance in open or closed ABEBA® shoes. The lightweight insoles also optimise the cushioning properties, which relieve the feet even on long days. If necessary, suitable insoles can be offered for orthopaedic finishing.



## Material selection

Increasingly, there are specifications, such as Annex 1 of the European GMP guidelines, for the use of cleanroom suitable socks, especially in aseptic areas. Both disposable socks and washable synthetic reusable models are used there. Natural fibres are unsuitable due to their abrasion and the risk of fibre breaks. Synthetic materials, however, have clear advantages. As far as wearing comfort is concerned, the fit and thus the wearing sensation can be improved by using special synthetic fibres with high elasticity. Cleanroom socks with silver fibres or fibres with embedded silver ions also have antimicrobial properties and improve the electrostatic properties.



Cuff with ESD logo  
Art. No. 393968

Art. No. 393969

## Disposable or reusable socks?

The logistical effort is significantly lower with the one-way solution. Furthermore, you avoid the problem of having to personalise washed socks in order to assign them to their wearers. The disadvantages, on the other hand, are a poorer fit, since disposable socks are usually only available in universal sizes, and in the long term a higher cost factor and increased waste.



**Most important advantage of reusable socks:** Properly decontaminated, they are usually much less contaminated with particles than disposable items when delivered.



Coloured stripes for size identification  
Art. No. 39392



Coloured stripes for size identification  
Art. No. 39392-REC

Description	sterile	Size	Colour	Material	VE	Art.-Nr.
Reusable socks	no	36 – 39, 40 – 44, 45 – 47	●	97% polyamide, 3% elasthane	10 pairs	39392
Reusable socks Best4Feet®	no	S, M, L, XL, XXL	●	92% polyamide, 2% elasthane, 6% silver fibres	5 pairs	393969
Reusable socks	no	S, M, L, XL, XXL	●	90% polyester, 7% elasthane, 3% silver fibres	1 pair	393968
Reusable socks REC from recycled PET	no	36 – 39, 40 – 44, 45 – 47	○	72% polyester, 25% polyamide, 3% elasthane	100 pairs	39392-REC
Disposable socks with a knit rib at the calf, breathable	no	universal	○	90% polyester, 10% polyurethane	100 pairs	393963
Disposable socks Choice® Cleanroom Socks	no	39 – 45	○	99% polyester, 1% elasthane	500 pairs	39380

**Be sure to select reusable socks one size larger. Due to their material properties, cleanroom socks shrink significantly more during the washing process.**



**Necessary basic requirements for cleanroom-suitable socks, depending on the respective application:**

- ▶ abrasion-resistant material (synthetic)
- ▶ conductivity, ESD-compliant if required
- ▶ washability
- ▶ sterilisability, for use in microbiological monitored areas

## Product recommendations referring to cleanroom classes

Cleanrooms and associated controlled environments – Part 1  
Classification of air cleanliness by particle concentration  
EN ISO 14644-1

Hygiene zones  
(microbiological controlled areas) according to GMP

Article	3	4	5	6	7	8	9	low dust	A	B	C	D	E
All articles of the product classifications:													
Clogs (occupational shoes)													
Slippers and sandals (occupational shoes)													
Slippers, clogs and sandals (safety shoes)													
PU and TPE clogs (occupational shoes)													
Exchangeable insoles													
Cleanroom socks													

### EXPLANATION

Cleanroom compatible occupational and safety shoes and socks can in principle be recommended for all cleanroom classes from ISO 5 up to ISO 9 (or low dust rooms). Therefore, we have refrained from listing a corresponding table here – as in the other chapters.

The same applies to hygiene zones A to D, if the items have been sterilised beforehand for A/B-zones accordingly.